

# Alaskan Way Viaduct Replacement Program Expert Review Panel Updated Report

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## Alaskan Way Viaduct Replacement Program



# Expert Review Panel Charge

- **Previous reports completed in 2012, 2013, and 2014**
- **New authorization from 2013 Legislature**
  - Update previous reports
  - “Ensure that an appropriate and viable financial plan is created and regularly reviewed”
- **The 2015 Report was released on April 7, 2015**

# Summary of Findings

## *Successes to Date*

- **Swift resolution by WSDOT and STP of the Disadvantaged Business Enterprise (“DBE”) issues.**
- **The Holgate to King Stage 3 project completed on time and below budget.**
- **Significant progress achieved on the non-mining portion of STP’s design-build contract work.**
- **Formation of a WSDOT Restart Team to monitor STP’s work and risk and mitigation efforts throughout the planning for TBM repair and re-launch.**
- **Protection of Program contingency funds by avoiding scope increases and recouping savings.**
- **Controlled costs for non-tunnel projects resulting in on-budget status for those projects.**

# Summary of Findings

## *Looking Ahead*

- **Schedule will be delayed-anticipated completion not known until TBM resumes mining**
- **Existing budget can be sufficient with assertive leadership**
  - the Program can still be accomplished with no additional State or local funds beyond those already contained in the \$3.1 billion budget.
- **Right steps are being taken to solve TBM problems**
- **Progress continues with schedule delay mitigating activities.**

# Today's Topics

- **Design-Build Contract**
- **Project Management**
- **Tunnel Boring Machine**
- **Risk Management**
- **Relations between STP and WSDOT**
- **Schedule**
- **Budget**
- **Funding Sources**
- **Post Tunnel Projects**
- **Stakeholder Communications**

# Design-Build Contract

- Well thought through document that should assist WSDOT and STP to find shared solutions for complex issues that arise.
- Addresses how potential risk factors are handled administratively.
- “Tunneling in a box” allowed early mining to take place in a controlled environment.
- Planned safe havens along first 1500 ft of alignment allow for inspection of the TBM and cutter head.
- CEVP process recognized risks that have manifested.

# Program Management

- The ERP finds WSDOT and STP have retained qualified personnel to execute the work.
- Current management decision-making and authority levels of WSDOT and STP are not reflective of authorities and levels typically seen in megaproject construction.
- Organization changes are being implemented to allow better management of both construction and the needs of external stakeholders.
- WSDOT and STP Joint Venture must remain united in goal to continue to build the tunnel project safely, efficiently and effectively.

# Tunnel Boring Machine

- The TBM Repair Plan appears to be viable.
- Causes for stoppage are subject of on-going legal and commercial discussions between WSDOT and STP
- Any conclusions drawn by HITZ or STOP will need to be reconsidered by STP once main drive and cutter head of TBM removed and additional investigation completed.
- ERP is reasonably confident TBM can be repaired.



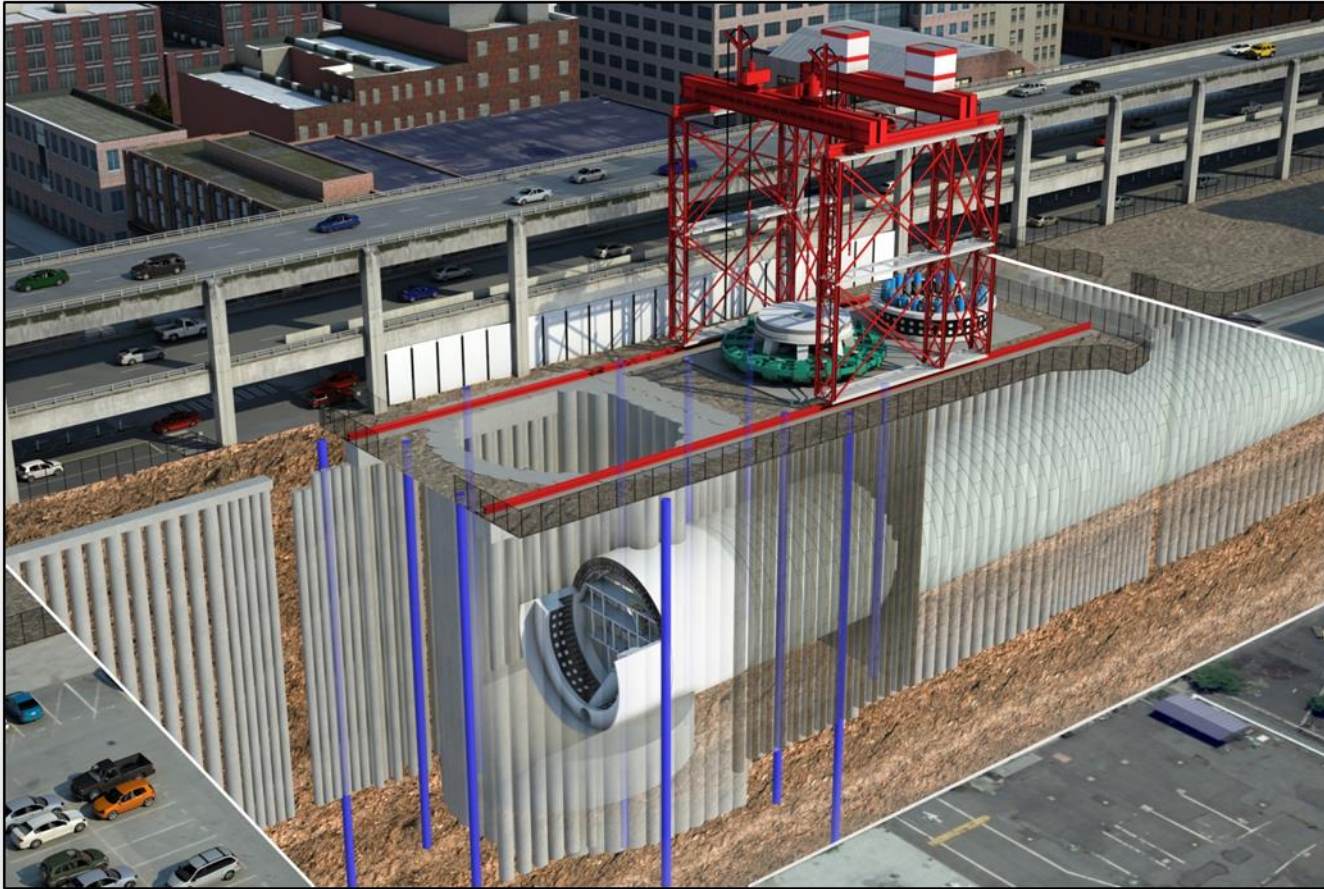
# Tunnel Boring Machine

- **STP and its TBM manufacturer appear to be taking appropriate steps to redesign and repair TBM.**
- **WSDOT is taking appropriate steps to monitor process with appropriate level personnel.**
- **STP and WSDOT experts have worked collectively to improve the future function of TBM.**

# Current Location of TBM



# Rescue Pit Configuration





# Risk Management

- Risks identified are not abnormal for tunnel megaprojects.
- WSDOT and STP implemented previous ERP recommendation to jointly assess, mitigate, and track risks.
- Joint risk register process has been effective at identifying risks but less effective at mitigating risks or minimizing consequences.
- Freer flow of information between STP and WSDOT is needed to provide increased confidence to WSDOT for risk mitigation.

# Relations Between STP and WSDOT

- Relations between STP and WSDOT at the working project level are good.
- Continuity in both the WSDOT and STP project teams assisted in maintaining current working relationship.
- The DRB process not effective as envisioned in settlement of disputes to date due to both parties' reluctance to acknowledge decisions made in the process.
- Achievement of timely resolution by WSDOT and STP of outstanding legal and commercial issues may be beneficial to maintaining positive working relationship.

# Schedule

- **Contract completion date is still November 2016.**
- **This date will not now be achieved.**
- **A new date is not possible to predict until tunneling restarts and an assessment is made of progress after safe haven #3.**
- **TBM delay has been partially offset by acceleration of other items.**
- **The tunnel project is not expected to have any adverse impact on the seawall and vice versa.**

# Budget

- **Based on information available today, with assertive leadership, Program completion can still be accomplished with no additional State or local funds beyond those already contained in \$3.1 billion budget.**
- **Unplanned issues with the TBM stoppage have increased the tunnel contractor's costs, costs for which the design-build contract provides mechanisms for resolution.**

# Budget

**Table 7.4-3**  
**Potential Costs and Potential Sources of Funds (\$ in millions)**

<b>Potential Sources</b>		<b>Potential Costs (Worst Case Known To Date)</b>	
<b>Amount</b>		<b>Amount</b>	
Post-Tunnel Savings	\$70.0	Submitted Change Orders	\$207.5
Contingency Funds	124.2	Future Known Change Orders	85.0
Liquidated Damages <sup>(1)</sup>	50.4	WSDOT Admin. Costs	25.0
Insurance (TBM)	85.0		
<b>Total Potential Sources of Funds</b>	<b>\$329.6</b>	<b>Total Potential Worst Case Costs To Date</b>	<b>\$317.5</b>



# Funding Sources

- Funds potentially available to pay for increased costs include program contingency funds within the budget, insurance policies, and post-tunnel project savings.
- Toll Revenues are not secured. Important decisions regarding diversion standards have been delayed.
- Projections of toll rates and the resulting amount of bond proceeds available not sufficiently detailed to provide sound basis for budgeting.
- Transit funding to mitigate impacts for remainder of the Program should not come from Program budget as all available Program funds may be required for successful Program completion.

# Post-Tunnel Projects

- **WSDOT and City should move quickly to complete a binding agreement regarding post-Tunnel projects (new Alaskan Way, viaduct demolition, BST decommission).**
- **There remains urgent need for respective expectations, roles and responsibilities.**
- **For budgeting purposes, essential to know amount WSDOT will be contributing to the Alaskan Way surface street.**

# Stakeholder Communications

- The Program would benefit from a regular forum for the City and State political leaders to meet.
- The communication protocols between WSDOT and the City are not clearly defined.
- Issues with ground settlement led to heightened concerns by the City and a breakdown in communication between WSDOT and the City.
- Official communication protocols are being established with clear reporting lines of communication should future issues arise.

# ERP Recommendation

- **Because of the number of significant action items and critical milestones over the next six months, the ERP strongly recommends the Governor and Legislature consider a 2015 mid-year update of the ERP 2015 report to assess:**
  - **Status of TBM repair and restart of mining**
  - **Likely impacts to cost and schedule**
  - **Progress of City and State agreement and budgeted costs for Alaskan Way Surface Street**
  - **Assessment of WSDOT organizational changes**

# Questions



**Questions?**